

REMARKS:

Claims 7-22 were filed by preliminary amendment in the original U.S. national stage application. Claims 18-22 are hereby cancelled without prejudice as potential subject matter for a continuation application. Claims 23-25 have been added and are similar to independent claims 7, 12 and 15, except that the word "adhesive" has been removed because this property is not required.

Claims 12-14 were rejected under 35 U.S.C. 102(b) as being anticipated by Moussa (UK Patent Application 2328775).

The applicant has amended claim 12 to include the elements of claim 14, which has been cancelled. Thus, claim 12 recites:

12. (currently amended) A three-dimensional model, comprising:
 - a membranous model replicating a body cavity; and
 - a translucent base material surrounding the membranous model, said translucent base material being elastic and in adhesive contact with the membranous model, wherein a refractive index of the membranous model is substantially equal to a refractive index of the base material.

Critically, claim 12 as amended specifies that a refractive index of the membranous model is equal to a refractive index of the base material so that light does not refract through the surface of the membranous model and the base material. This is important because image deformation affects the realism of the membranous model, especially when use of a catheter in the model is practiced. While the Examiner states that the Moussa patent discloses that the refractive indices of the

materials are substantially equal, the applicant fails to find any description that supports this statement. Accordingly, claims 12 and 13 are not anticipated by Moussa.

Claims 7-11 were rejected under 35 U.S.103(a) as being obvious over Moussa in view of Shun (U.S. Patent 6,887,082).

The applicant has amended claim 7 to recite, in relevant part:

...a translucent casing accommodating the base material; wherein said membranous model includes at least two portions extending out of said casing, said portions having been artificially added to a body cavity model from which said membranous model is formed.

Support for this amendment is found paragraph [0144] of the published U.S. Application, which describes the guide portions illustrated in Figs. 4 and 7. The addition to the membranous model of at least two portions that extend out of the casing that surrounds the base material allows a fluid, such as simulated blood, to be realistically pumped through the model. This, in turn, provides for a more realistic experience to a user moving a catheter through the membranous model (i.e., while simulated blood cycles through the model). Nothing in the combination of Moussa and Shun discloses or suggests claim 7, as amended. Thus, all claims depending from claim 7 also would be unobvious.

Claims 15 and 17 rejected under 35 U.S.103(a) as being obvious over Moussa.

The applicant has amended claim 15 to add a translucent casing accommodating the base material, wherein said casing includes a transparent planar plate through which a dynamic behavior of said membranous model is observed. Support for this amendment is found at paragraph [0150] of the published U.S. Application, which describes a planar (rectangular) casing 24 (shown in Fig. 7). Moussa does not disclose or suggest such a plate in the "skin" casing that surrounds a membranous model and base material. Indeed, the skin 12 through which the replica body organ is observed is curved, not planar. The curvature of Moussa's skin 12 produces a "lens effect" (much like a curved fishbowl), in that the image of the replica organ is deformed. In contrast, the planar plate of the applicants' casing does not distort the shape of the model such that the dynamic behavior of the model is correctly observed (a critical feature for a catheter simulation). Hence, claims 15 and 17 are believed to be unobvious.

Claims 16 and 18-22 were rejected under 35 U.S.C. 103(a) as being obvious over Moussa in view of Szaroletta et al. (U.S. Patent No. 7,430,038). As claim 16 depends from the amended claim 15, and claims 18-22 have been cancelled without prejudice, this rejection is believed to have been obviated.

In view of the amendments and remarks above, the applicant respectfully requests that the rejections be reconsidered and a Notice of Allowance issued.

Except for the fee due for one additional independent claim (the application now has 6, whereas fees covering 5 independent claims were paid upon filing) and for a two-month petition for an

extension of time, no fee is believed to be due with this Response. Should there be any unforeseen fee or credit, please charge or apply it to Deposit Account 170055.

Respectfully submitted,

Quarles & Brady, LLP

A handwritten signature in black ink, appearing to read 'Gavin J. Milczarek-Desai', with a stylized, cursive script.

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